

Appl. No. 09/645,225
Amtd. Dated Sept. 16, 2003
Reply to Office action of August 7, 2003

Amendments to the Specification:

On page 5, cancel paragraph [0018] at lines 18-31, and insert following replacement paragraph therefor:

[0018] It has been surprisingly found that as the value of r is increased for a given number of layers, the mechanical stresses decrease. As a result, for the first time, more than 51 layers can be used in the interference coating without suffering mechanical failure due to tensile stresses. Coatings can be produced having greater than 51, 55, 60, 65, 70, 75, 78, 80, 85 or 90 total layers. Optionally, the total number of layers will be less than 100, 110, 120, 130, 150 or 200. In order to use more than 51 layers, the $Ta_2O_5:SiO_2$ ratio must be increased as the number of layers (i.e. the total thickness) in the interference coating is increased, in order to maintain mechanical integrity. The value of the ratio may be at least 0.9, 0.95, 1.0, 1.1, 1.2, 1.3, 1.5, 2.0, 3.0 or 4.0.